

POPULAR Computing WEEKLY

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23-29 October 1986

Vol 5 No 43

NEWS DESK

W H Smith boots
Mastertronic from
Gallup chart

Amstrad PC's
reliability
questioned

SEGA MASTER SYSTEM



Full review plus
Sega software
starts page 14

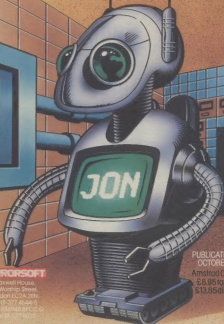
Games consoles: the threat to the 8-bit micro



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ICON JON

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WHY IT TRIES TO ESCAPE, OF COURSE!



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Maxwell House,
74 Worship Street,
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Tel: (0-777) 4044/5
Telex: 856046 SPCO G
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PUBLICATION
OCTOBER

Amstrad/CPC
£8.95 tape
£13.95 disk

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75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

SOFTWARE ▶

13 Forecasting

Statistics without tears from Amstat, for Amstrad CPCs and PCWs.

K-Switch

Load two programs into your ST and switch from one to the other at will. Particularly useful for transferring in-

formation on utilities, from a database to word processor, etc. Mark Jenkins has the details.



14 Sega Master System

Games machines are back in vogue again. Amstradsoft is set to import and market the Sega range of models from the US. See for yourself how

◀ HARDWARE

these video consoles have changed since the days of ping-pong on the telly.

John Cook looks at the machine and the software which will be available for it.

GAMES ▶

16 Adventure Corner
Adventure
Helpline

19 Arcade Action

The long-awaited Knight Tyne tips, plus this week's Gallup Top Twenty.

22 Reviews

Infinite variety this week, with Rogue from that graphic maestro Epyx on the ST, the Spectrum version of Software Projects' chart-topper Dragon's Lair, The Great Escape from Ocean, and Camelot Warriors from Amstradsoft on Amstrad CPCs.



◀ PROGRAMMING

24 BBC

Brought to you courtesy of BBC. Jet Pac author, David Jones, a utility entitled Jernode.

25 Atari ST

A word count facility to use in your documents.

26 Spectrum

Slow Pro by Michael Rees.

26 Amstrad CPCs

Our racing prediction program reaches its second phase.

27 Commodore

More disc and printer utilities.

30 Bytes and Pieces

33 Peek and Poke

REGULARS ▶

4 News Desk

Updates on the Gallup chart.

10 Letters, Puzzle

31 Competition

20 copies of *The Archers* game to give away to lucky winners.

35 Soundcheck

36 Communications

44 New Releases

46 Ziggurat, Hackers

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ABC

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Games machines threaten the micros

GAMES cartridges could mean the end of the current generation of 8-bit home computers, according to predictions in the software industry. At the launch of the Sega last week (see review, page 14) Ashley Gray of Amstrad was suggesting this possibility, while Activision managing director sees the industry splitting sharply between cartridges and the more expensive 16-bit machines.

"I see games cartridges running alongside budget games," he says. "But most of the software is going to be more expensive." The argument goes that the standard of games that will be available on the consoles is so high that games players will move over to them from the

cheaper machines. Logically the market for games on the latter will decline, leaving the likes of the ST and the PC to hold the ring in the home micro market.

The success of the consoles will however depend on software availability, and in the short term it's uncertain how much there will be. Activision already produces software for the machines in the US, and will be able to report it, while Amstrad is bringing in Sega's own cartridges, but there seems to be little development currently under way in the UK.

Sega development systems should start to circulate shortly, but Atari has yet to contact software houses about its 7800 machine,

while one major software producer voiced doubts on the subject of trying to get specifications for the Nintendo out of UK distributor Ideal.

Price will also be a barrier. Customers want cartridges starting off at £15-£20 and dropping over the next year, but consoles that although the software houses will push for prices onto the console manufacturers will want to keep prices up. He's not willing to predict which machine will do best here, but although price will be a factor — the Atari will be around £60, the Sega £100 and the Nintendo £140 — he feels that the company with the best distribution will dominate the market for consoles.

Mastertronic hits out over changes in chart

THE dominance of Mastertronic in the Gallup chart has dramatically collapsed this week, largely to the benefit of its budget rival Pinhead.

This week's Top Twenty (see page 19 for details) has six Pinhead titles that all budget releases against Mastertronic's one. In the top four, Pinhead has 11 games, and Mastertronic five, compared to ten out of 20 in September.

The reason for this is that this week, W H Smith, one of the leading suppliers of games software, has released 50 of its stores to retail sales figures to Gallup each week.

Gallup software researcher Matthew Brown said, "This is the first week that we have W H Smith online. We were aware that something like this was going to happen, but I don't think anyone realised it would be quite so drastic."

Frank Herman, chairman of Mastertronic, pointed out that the inclusion of W H Smith would inevitably tell against his company's titles.

"It's simple. W H Smith does not stock Mastertronic titles. Mastertronic was not prepared to pay the distributor margins required to get into Smith's."

On the question of whether either Pinhead or Mastertronic have been fairly represented in the charts in the past, Matthew Brown said, "If this means we were under-represented Pinhead before, then we've put it all to rights. If we're over-represented, then we'll look closely at it."

Frank Herman had no doubts about Mastertronic's share. "I've never thought we were over-represented. Our biggest outlets are Woolworth's, Tesco, and Topps & Co — which are totally ignored by Gallup."

Pinhead was understandably cheerful at its increased visibility in the Gallup chart. "It's good to see that the most representative source of market information is starting to become backed by the multiples," said Pinhead marketing manager Tom Watson.



The complete Compliment

First sightings of new Saga at Microfair

THE NEW version of Saga's new Compliment will be on display at this Saturday's ZX Microfair, and although the machine won't be on sale Saga will be taking orders for delivery over the next few weeks.

The system is basically a bundle of disc drive, add-on keyboard, printer and software, and at £244 is substantially cheaper than the cost of the items separately. The keyboard is a Saga 2+, while

the disc drive is the Dux Discover, which is as near a disc standard for the Spectrum as you can get.

The printer is capable of 150 cps, and can achieve 25 cps in EBI mode, while the bundled software, which includes word processor, spreadsheet and data base, is controlled by a menu-driven system that bypasses Spectrum Basic. The system will be reviewed in full in next week's issue.

Amstrad PC reliability is questioned

THE reliability of Amstrad's new PC was questioned last week as chemical giant ICI decided against buying large numbers of the machines after a series of tests. The PC's small footprint seems to have been its undoing here, as it has no fan and little free space inside. ICI feels that this could cause overheating.

Several individuals who bought the machine are also known to have had problems with it, although an Amstrad spokesman suggested that these were caused by "installing the power supply." A PC with as full complement of expansion cards would obviously run hotter, but any problem is more likely to relate to the power design.

The IBM PC itself and many add-on cards are designed from components with a higher power class than Amstrad's own country, and the company may therefore have underestimated the rating is needed for its power supply and expansion slots.



The new Business 2

Memotech's in Business

MEMOTECH'S first new computer since its return from the liquidator is to be the Business 2, a micro, printer and monitor bundle that will sell for \$660. The machine runs CP/M 2.2 and has a single 3½ inch disc drive as standard, with Room of 288K plus a 912K Ram disc.

The Ram disc can be expanded up to 4MB, and the machine has a wealth of interfacing: twin RS232, Comarcia, twin composite video,

RGB and joystick ports. It also has a socket for the MSR 2 graphics chip, which will allow the machine to be used with video cameras and frame grabbers.

It will run existing Memotech tape software, and an Amstrad emulator plus a 3 inch disc drive will also be available to allow it to run PCW software.

The machine should come onto the market in the next few months.

Adventurer's Club reopens

THE Adventurer's Club was due to reopen its doors on Monday after an absence of several months. According to a letter sent out to members by organizer Harry Muller the last few months have been "a lengthy takeover battle" for the club, which is a limited company.

Muller has now emerged as a triumphant 51 per cent shareholder and intends to resume publication of the Club's newsletter from the end of this month. Subscriptions will be extended to compensate for the months in which deliveries remained nothing.

Micro smuggler jailed

A COMPUTER expert was fined £25,000 and jailed for nine months last week after pleading guilty to eight charges of illegally exporting computer equipment to the Soviet Union.

Alan Simmons was arrested at Birmingham airport in 1984 after undercover Customs officials watched him unloading a consignment of

equipment into an export warehouse.

Simmons fell foul of the Nato ban on export of equipment that could be used by the Eastern Bloc for military purposes. The banned list includes equipment from mini-computers down to 16-bit micros, as even the humblest OS requires a special export licence.

Software Hotlines

From contenders for software of the year (see Hotlines last week, with *Mad Science by Fire* 'all in the best possible taste') *Wild, Devil* now make a wrong bit in the 'Clashing of hands over the face' — Oh God what are I doing here? — event, with the release of *Pat West*, about a *Spooky*. Indefinitely maddening, astoundingly dull, one assumes that someone in the company has gone madly AWOL.

Johns lend they can't be serious, can they? are acceptable at £1.95, but when they are sold at £9.95 they lose much of their humor. Programmer/designer Julian Todd has no shame... his name is there on the title, Julian, do the computer in during a favour. Take up back to waiting.

From a Dodo to a Duck, *Howard the Duck* — once comic book character, now movie, soon to be computer game. *Activision* should be releasing it later in the year, but we were straight to the source (Harris) scene in the case) and saw the film last week. *Popstar's answer to Harryhausen* calls me that this Duck is more than a little tame. Big A. must find this disappointing to say the least, so it is rumored that in the film rights carve-up with *Electric Dreams*, *Activision* chose *Howard* in front of



Pat West: blown a sparky

that blockbuster *Alien*. They must have been quakers.

More and more it seems that retailers and distributors are taking commercial decisions that are doing disturbing inroads into what you, the public, get to see in the shops. The actual selection and display policy of the multiples is probably the most serious of these, but how's this for a silly one.

Infogrames is planning to launch another kind of video-cards program later this year called *Murder on the Atlantic*. It involves a murder on board an Atlantic liner just before the outbreak of the Second World War with spies, intrigues, mystery, etc. etc.

Now, together with the tape/disc, *Infogrames* have a whole load of supplementary material to help the budding sleuth. Maps, newspaper clippings, pictures from the holiday snap (below), code books, letters — even some battle logs. *Infogrames* would be proud of this little lot — but it seems because it's a bit out of the ordinary, you may never get the opportunity to buy it. Pass the lock bag.

John Cook



Jenny in Deserville

Seeking the software for Sega system

SOON now for the invasion of this games console. Atari, Nintendo and Sega are all convinced that the market everyone thought was dead is alive and kicking, and poised for spectacular growth through the next year.

Sega's Master System is being distributed in the UK, Ireland and Germany by Amstrad, and at the launch last week Amstrad was talking about the home, why and whereabouts of the dedicated games machine.

The boom that is perceived as being about to happen is based on the continued popularity of non-dedicated arcade machines, and the reasoning is that if you can get together a games console that will allow people to play arcade standard games at home you can sell lots and lots of them.

It is, however, vital to get adequate supplies of games into the shops alongside the consoles. This is one of the

problems they've faced in the past, and could spell trouble in the future. Sega is determined in the coin-op business and, according to the company's European managing director Victor Lehto, released around 12 new titles a year.

Now if you accept that the home player's performance differs from the arcade player's - in that while the latter plays until the money runs out, the former plays until sick - it's likely that the games consoles will need to have many more titles available for them, and these are unlikely to come from Sega.

Frank Bronger, marketing manager of Amstrad, says that the software for the machine will be fairly tightly controlled.

Software houses wishing to write for it will first have to obtain licences from Sega in Japan. Lehto claims they were queuing up for them on his last visit, then wrote the



Sega: Growing a head on the games market

game, and then get Amstrad's agreement to market it.

In terms of volume of software there are clearly problems here. Any company wishing to write for the Sega has to be big enough to negotiate the licence and also big enough to sustain the cost of developing a game with no guarantee that it will ever be released.

And while Amstrad doesn't envisage any problems in negotiating with Japan it's almost certain, given the ad hoc nature of much of the British software industry, that some companies will face delays and frustrations.

The logical alternative, to write and release the software independently, may be closed to people who want to write for the Sega. The machine uses cartridges and

Amstrad wants for software, but it checks the trade for the presence of some form of code that is Sega's copyright, so if you don't have a licence and you write something that runs on it you're probably a pirate.

So if the machine takes off we're likely to see less software produced by lesser companies, and while an average it should be better it will still mostly commissioned work, and will lack the off-the-wall innovation that's generated by having reachers and users can actually progress. Naturally it's in the interest of the bigger software houses to have a more controlled market, and to up the ante in terms of entry cost, but is it in the interest of the users?

John Lattice

QL's return planned for ZX Microfair

THE next ZX Microfair - the 20th - takes place at Central Hall, Westminster this Sunday (October 28). This is a change of venue from recent Microfairs. Central Hall is situated opposite Westminster Abbey.

The show's organiser, Mike Johnson, is enthusiastic about the products on show this weekend. "We'll have the Sega Complement on display, and Sandy is showing prototypes of his super-QL type machine. CST will also be there with their."

But what about Amstrad? What's it be there to take Bristol's place with the Spectrum Plus 2? "Well, I was hoping that Alan Sugar would come and sell one or two off

the back of a barrel, but apparently not," said Mike.

"But I wouldn't worry. I expect there'll be quite a few independent companies selling Plus 2s on the day."



Then back to the Microfair

Geoff Heath hikes over to Mastertronic

Geoff Heath, who resigned abruptly from the post of UK managing director of Melbourne House last month, joins Mastertronic on November 1.

He will be head of new business development, with responsibility for recruiting new areas for Mastertronic to go into.

Mastertronic has also acquired Building Distribution, the company which was bought by Melbourne House while Heath was managing director there.

Building is responsible for supplying software to Toys R Us, among other outlets.

Geoff Heath owned a music



Heath: Researching new business opportunities

publishing company before entering the software market as head of Activision in 1980.

He joined Melbourne House in May of last year, and his move to Mastertronic is probably related to his interest in distribution.

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Access and Barclaycard holders phone 01 278 0751



Micro Focus produces PC Cobol package

MICRO Focus has produced a special £99 educational package for PC compatible machines. The package is aimed at computer language teachers and consists of Personal Cobol plus an accompanying book, free while stocks last.

The program is a fully integrated set of productivity tools that includes Micro Focus' Advance software testing facility. The book is

Cobol on microcomputers, by Alan D B Fryer. The package is available to educational establishments from Micro Focus, and to individual users by Heath.

Details from Micro Focus, 28 Wren Street, Newbury, Berks RG13 1JT. Tel: 0635 32848.

or Heath, The Old School, Greenfield, Bedford MK45 8DE. Tel: 0525 719181.

Prestel goes for gold

FROM December Prestel subscribers will be able to access the Telecom Gold electronic mail service via a new gateway, which will ultimately mean that messages will be able to be transferred across both networks.

The gateway allows searching information of the sort produced by Gold to be formatted in Prestel style. Prestel users will be able to edit text prior to transmission, and to move straight to Gold's 31 entry point from Prestel.

Details from Prestel, Telephone House, Temple Avenue, London EC4Y 0HS. Tel: 01-422 1055.

Low-cost PC packages

MMP Computer Systems has launched three specialist packages for IBM compatibles and the Amstrad PC. *Flow File* costs £119 and is a program designed for managers' stock control and accounting, dealing with publications stocked, orders, delivery lists, overdue or-

derings and inventory accounts.

Data Administration and Management is £79 and provides facilities for mailings, prospecting, follow up diary and a range of other sales-related matters. *Life and Pension Planning* is a system for the life insurance and pensions industries, dealing with life insurance, pensions, capital conversion and other related areas. It costs £99 for the planning module, and £125 for management.

Details from MMP Computer Systems, 105-107 Windsor Road, Otham OL8 1BP. Tel: 081-624 5552.

Mini on Rom

ARM Office II is now being sold in Rom version for the BBC B, Master and Master Compact computers. The £59.95 product, which is contained in four chips mounted on one board, allows immediate access to the six modules of word processing, database, spreadsheet, graphics, label printing and communications.

Details from Database Software, Europa House, 50 Chesser Road, Heston Grove, Stockport SK7 5PY. Tel: 061-423 2737.

Diary Dates

OCTOBER

25 October

30th EX Manchester

Central Hall, Manchester, London SW1

Details: Dealer machines, hardware and software support.

Prices: £1.50 adult, £1 children for advance sales, £2 and £1 on the door. Organiser: Mike Johnson, 01-661 8172.

27 October

Computer Club 86

New East Computer School, Birmingham Road, Walsall

Details: Many Amstrad 8600 includes a Sinclair version. Price: 25p.

Organiser: What Methods School, Sunning, 021-428 1112.

30-31 October

Paraglide Computer Fair

Coventry, Southgates

Details: Business Computers. Price: Free entry by business registration.

Organiser: Festival Exhibitions, 0192 31552.

NOVEMBER

1 November

Keen Organ Show

Marlborough Hotel Hall, Seven Stars, Marlboro

Details: Local Organ show.

Prices: £1 adults, 50p children. Organiser: Compagny, 0871 773559.

7-9 November

Electron and BBC Micro User Show

New Horticultural Hall, Grosvenor Street, London SW1

Details: Hardware, software and peripherals for the Electron, BBC micro and Master series.

Prices: £3 adults, £2 children, £1 discount for advance booking. Organiser: Database Exhibitions, 021-456 8825.

8 November

URESS National Electron Show

National Motor Cycle Museum, Birmingham

Details: Electron software and hardware.

Price: Free.

Organiser: URESS, 07462 2166.

11 November

Wales and West Computer Show

Central Hall, Cardiff

Details: All types of home computer and support.

Price: £1 adult, 50p children.

Organiser: Perton Exhibitions, 0162 82285.

21-23 November

The Commodore Computer Show

Newport, Portsmouth, London W6

Details: Hardware, software and peripherals for the Commodore range of computers.

Price: £3 adults, £2 children, £1 discount for advance booking. Organiser: Database Exhibitions, 021-456 8825.

28-30 November

The Atari Christmas Show

New Horticultural Hall, Grosvenor

Street, Westminster, London SW1

Details: Hardware, software and peripherals for the Atari range of computers.

Price: £3 adult, £2 children, £1 discount for advance booking.

Organiser: Database Exhibitions, 021-456 8825.

29 November

Wight Computing Fair

Isle of Wight Hall, Ryde, Isle of Wight

Details: Local show covering wide range of subjects.

Price: 50p.

Organiser: Wight Computing Show Group, 30 John Street, Ryde, Isle of Wight PO33 3PY.

Prices, dates and venues of shows can vary, and you are therefore strongly advised to check with the show organiser before attending.

Wight Computing Show Group accept responsibility for any alterations to show arrangements made by the organiser.

Free flightsim from Microsoft

MICROSOFT is offering a £29.95 home support package to go with its new low-cost PC products, *Word Junior* and *Multiplan Junior*. The package gives you 12 months' telephone support and comes with a free copy of the Microsoft *Alpha Simulator*, which usually costs £45.

Unfortunately it doesn't seem possible to get the free *Alpha Simulator* without buying *Word* or *Multiplan* first, as you've got to send a coupon in...

Einstein owners join the Elite

TALKING Einstein owners can now play elite with the aid of the company's *Spectrum Emulator*. The emulator, which costs £49.95, plugs into the Einstein and operates in con-

junction with software that allows 2D Spectrum games, including *The Hobbit*, *Demolition* and *Star*, to be played on the machine.

An £45.95 for the Emulator and £9.95 for the software it's something of an investment, but it is cheaper than a Spectrum.

Details from Talking UK, Seaford Park 10, Telford, Shropshire TF3 3AB. Tel: 0952 813111.

Training for Amstrad PC

PROF Class is organising a training course for Amstrad PC owners at its training centre in Basingstoke. The one day course costs £85 and covers the PC's hardware, operating system and bundled software.

Details from Prof Class, Inc., 1, Watlington Road, Basingstoke, Hants RG24 0NF. Tel: 0256 483344.

Tandy to sell cheap PC programs

TANDY is to back up its 100004 low-cost PC compatible with a range of cheap software, to be sold through its stores from the end of this month. On the serious side the software includes the *Trust Hiber Handler* look-alike at £99.95, Lotus clone *VP-Planner* (£59.95) and *Mathspan* (£75).

Details from Tandy UK, 0833 477728.

Accounts pack for Compact

MELADON Computers has released a Master Compact version of its *Main-Reader* program. The sales and purchase ledger has been enlarged to 1,000 accounts, with 5,000

transactions per entry per ledger. The program costs £230.

Meladon is also selling Master Compact versions of the *Micro-Stack* stock control program at £98.25 and an amended *Repeat* program for the *Alpha-Reader* suite at £57.48.

Details from Meladon Computers, 11 London Street, Whitechurch, Havant. Tel: 024632 2000.

High resolution mono monitor

THE IBM 12 PC is a £88 high resolution monochrome monitor for IBM PCs and compatibles. The monitor has a 12 inch screen and needs a Hercules standard card in order to connect it to the PC.

Details from Hercules, Unit 3, 243 Kingsley Bridge Road, London SE26 5BA. Tel: 01-778 1414.

Competition

Join in with the Archers!

Forgo Lofly's plight in *Janet's* *Delia* scriptwriters will cope with having to send off an entire series as a signpost of Pam's imagination. This is the Big Giddy soap opera of them all - *The Archers*.

The Archers is now the world's longest running broadcast serial, and has just become the subject of an interactive fiction computer game by Mosaic Publishing.

To celebrate the occasion, Mosaic has come up with 20 copies of *The Archers*

game to give away to *Popular* readers, and we've racked our brains to come up with the competition to go with it.

How to enter

And here it is! All you have to do is think up some suitable lyrics to go with *The Archers* radio signature tune, you know, the one that goes 'Dumdy dumdy dumdy dum, dumdy dum dy dy dy, dumdy dumdy dumdy dum, dumdy dibly dy'.

That's it. Nothing more, please, and something with a (suggested) *Archers* feel to it would be appropriate.

Conditions

The closing date for *The Archers* competition is Friday, November 14. The 20 people who submit the best set of lyrics, in the opinion of the judges, will each receive a copy of *The Archers* for the machine of their choice.

Winners' names will be printed in *Popular Computing Weekly*, November 27.

One entry only per person, please.

Fill out the coupon, or a photograph, and send it to: *The Archers* Competition, *Popular Computing Weekly*, 12-13 Little Newport Street, London WC2H 7PP.

Name

Address

Suggested lyric

If over, I would like a copy of *The Archers* for Spectrum ☐ tape ☐ Commodore 64/128 ☐ tape ☐ Amstrad CPC 464/664/8128 ☐ tape ☐ or disc ☐ Amstrad XL/MS ☐ tape ☐ MSX ☐ tape ☐ PCW 8514/8512 ☐ disc

Tick appropriate box



The faces behind the voices on *The Archers*

was made with the Amstrad range because the package - 280 processor chip, plus monitor and 3 inch disk drive - is extremely competing, and the capabilities are similar.

We used the term well-established for the 8286/8512s with reference to the Amstrad's user base rather than longevity - and would be surprised if the original Electron had sold as many in the UK as the PCWs.

Power tripping

I find it inconceivable to have to take my monitor everywhere I take my Amstrad 6128 computer, as the monitor contains the power supply for both the computer and the disc.

Can anyone notify me if you know of anyone making a suitable power supply?

Lee Stanton
Aylesford

No more GAC

I don't mean to continue the Duff vs GAC debate, so I won't, even though I could make off a string of comparisons in favour of one or the other.

What I would like to say is that I find the Amstrad GAC keyboard repeat rates at the drawing part of the program too fast and I'm sure that if many authors were to step through their drawings they would find that they have wasted many bytes with repeated commands.

Now on to the subject of different character sets on the Amstrad GAC. No, I don't have the solution, but I do have an idea.

What if you say Duff I have a Basic loader program, which first loads up the character set, then the main program, and calls it instead of subprogram 1. I have found that a GAC adventure loads into an area of memory too low for a Basic program to reside anywhere.

Now I'm sure that some machine code whizz out there can write a small routine (preferably relocatable) that will simply swapbytes up near high memory that would load an alternative character set, then the main adventure and exit.

I can provide the memory locations I need for, so, please, can anybody help?

Lee Ford
84 Sowerth Road
Cardiff
Surrey



"The first stage in creating the joyride"

Luxury dump

I thought some of your readers might be interested to know how to get across dumps of pictures created using Koolha Painter, as the program does not allow for such a luxury. I started them up for the Green dump routine, however, which was printed in *Popular* September 18, and was written by D Farrow.

Firstly, a machine code monitor is required (don't be put off by this if you don't know anything about machine code as the operations involved are both brief and simple). Any monitor will do as long as it has a command to copy a block of memory, allows loading of files and allows you to set all basic.

Type in the program from the September issue, make sure it's working okay then save it to tape or disc. Alternatively load me a standard addressable envelope and add (for a cassette) and I will send you a copy of the program.

Next load your monitor program and type the command to load a file and load the picture drawn with Koolha Painter. Don't forget the required heart symbol at the beginning of the name.

Now type in the command to copy a block of memory from block 0 to \$2000 and is to be copied to memory starting at \$2000. Now use the monitor back to back and load the multi dump program. When loaded, type \$2000155 and you will see your picture. Full instructions for the screen

dump program are given in the September 18 issue.

I hope this is of some use to all the frustrated artists out there who would like to see their work in a hard copy form. Incidentally, if anyone is thinking of getting a monitor assembler for the purpose, I would recommend Zbus, as it is perfect for the job.

Peter Date
Canham

MTX Fanatic

Being a fairly regular reader of the general computing press, I offer your readers a few moments of read time, articles about Amstrad's Amstrad.

Having been attracted to the MTX 512 since it's launch, I couldn't wait one at the latest price. Having been stunned by the software houses, it's essentially a hobbyist's machine and was so purchased as my third machine.

I agree with your two letters in the Sept 11 issue that a powerful beast and it is a joy to use, but I must admit to having some disappointments.

Firstly, the manual is either far more than usual into to beginners and experts alike, but not so the rest of us as between who understand Basic and are generally producing the cream of hi-code.

The memory map might as well be printed in Japanese. I find not show the addresses of display memory, variables, Basic or Character blocks etc. There are no Galls given and we can't show how to access the last 168 pages of Ram, nor how to enter graphics hi mode. What great use is the built-in assembler without such info?

The danger of entering HiMode without it being listed is mentioned, but not explained. The later publication from Phoenix with its countless errors, omissions and omissions to commence in letters "hand-waggers" books was no further help.

I was also been unhappy with the hardware. This is the third MTX in as many months. Modulator faults, it seems things like losing eight pixels off the edge of the television on the left side, excessive hum and flick plots on certain colours and that damned annoying "grr" across the screen every five seconds.

The factory guys seem so confident on default they do with one day what can easily be done with two. One can program them to hold extra parts, etc, but I don't feel they could perform a defined function in the true sense. However, they do mean a changed condition even after viewing.

Compared to Sinclair Basic, the logic is very inflexible. You can't have, for example, Goto 100 - (55 And A) - (55 And B) = "B" or if 0 and really = 0.3 then.

And must apparently follow it and then only between arguments, not conditions. One is forced to use like by way of compromise. Fortunately we didn't need the information and understanding built into, as right as the MTX stands Sinclair is general string doing.

Just missed is Merge or similar. Whilst this, there seems to hope whatever of developing simple data manipulation programs, which by necessity move the data in arrays in the variable file.

Due to what must be one of the biggest design "flaw-ups" in computing history, 32 variables are shared every time a program line is entered. I wonder why Memotech found this great sacrifice necessary?

Loading is like the old Z801 where before the whole program is loaded as nearly stopped, almost it is just as tricky about signal levels, too, but without the added loading lines in the display to act as a guide to signal level.

Sound and graphics, though, are really something else in Basic their execution almost equals that of some Spectrum hi-code, and the recently used package Amstrad Amstrad could I am sure, be quite acceptably produced in MTX Basic.

No doubt, as I gradually discover my "amstrad" sign on the MTX, I might discover more in the quirk. Perhaps by then also, I might discover how to access the Speedstar ROM to interchange other characters than those provided on Character 1.

At the end, the MTX is one half of a machine for the money.

D Pearce
Bridford
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Hard work and miracles forecast

Forecasting—comes from the Ancient Greeks, public school, all infamous (although for school users. This particular package deals with aspects of multiple and linear regression analysis—so why isn't it called Regression Analyst? The answer is that unlike many statistical techniques which have a largely technical or scientific application, regression is a means of studying trends in data and the possible users are too widespread for it to be limited to specialist applications.

It can be argued that regression analysis is, or should be, an important tool for any business interested in making predictions about

"It can be argued that regression analysis is an important tool for any business interested in making predictions about sales, etc."

sales, etc., or that wants to find out which components of their business strategy seems to be contributing most or least to their success.

To help reduce some Analyst manuals are small, snappy or brief. Beyond teaching the mechanics of the program you are just pointed towards suitable textbooks for more detailed information on the very different areas which, fortunately, falling in mind the possible lack of timing and

heavy demands on the time of business users. Forecasting is accompanied by a very clearly written and easy to follow manual which succeeds in being both educational and practically oriented.

The result is that within about half an hour you can perform extremely complex computations on your data with only a few simple steps.

As with any statistical package the quality of the

results really depends on the value of the data you are able to input and forecasting cannot be expected to provide magic answers without some hard work on your part. However, on the whole this is probably the strongest Analyst ever released yet, high powered and at extremely low prices and backed up by much improved documentation.

Tony Hancock

Program: Forecasting Micro
Price: £29.95
Supplier: S. C. Gorman, 33 Lonsdale Road, Heston, Middlesex, Uxbridge, Middx. UB8 3DA

Switching back and forth with K-Switch

Wouldn't it be lovely if your micro could do two things at once? Well, K-Switch doesn't offer that facility (you can't turn a 5285T into an Amiga for £29.95... yet) but it does allow you to load two programs simultaneously and switch from one to another as desired. This can be incredibly useful if you want to transfer information from a data base to a word processor or a spread sheet or whatever. For the particular musical interests, applications could include switching from a sound editing package to a compositional package, and so on.

The obvious limitations are there—K-Switch doesn't do hard recovery (well, and so you won't be able to use it with anything which relies up the whole memory. Presumably no desktop-type applications you'll find that the program could run out with the total capacity artificially limited.

But many of the K-Switch packages, such as K-Speed and K-Graph, work happily together using K-Switch, so at least you know where you are with these. For your own convenience, you'll just have to use "File Show Info" as screen how many bytes a program or disk uses up, and perhaps get the retailer to check that your two favourite

programs will run happily together.

When running K-Switch, you'll find that the operating environments for the two programs remain independent, so changes to screen mode or keyboard repeat rate for one program do not affect the other. K-Switch includes a special command-Ramdisk facility, under a Ramdisk (an area of memory temporarily holding a data base for such much faster access, comes used in one program would not instantly be available to the other program running with it.

K-Switch is installed from the desktop with no programs running, and you simply depress both Shift keys and all to swap programs, which takes about 1 second on a fast machine. Options include setting the icon of the Ramdisk (with an indication given of the amount of memory remaining for the main program) and these options are saved as default values. You can choose to switch either the Ramdisk or the Switcher, but you must install them together if you want to use them together.

K-Switch also allows you to save the current file and its environment as one file, so you can "put away" your word processor with its current piece of work if you have

to leave it to go on to something else. This function is labelled "Save Work Session".

The Ramdisk can be saved as a single work file, and you can double the "Hardy After Work" function to double saving speed—or if you want to take the added risk of disc errors getting past the system.

Because K-Switch will generally handle at least one of the programs, usually, it can help you to restore "bug ridden" programs and allow you to reload a previous work session over a crashed program. You can remove the Switcher (and Ramdisk if you like) at any time, but it's not possible to remove the RAM disk alone once it has been installed with the Switcher. A good selection of warnings keep you up to date as to what K-Switch will be doing if you do this.

K-Switch doesn't take much support of peripheral activity and so shouldn't be used in the middle of a printout, disc transfer or 16232 session—as we've mentioned, there will no longer be any activity in the background. You can't use K-Switch with any program on a "boot disc" as K-Switch is removed if the system is reloaded. K-Switch itself uses just 104.1K bytes.

Overall the usefulness of this program will be defined by your needs: applications for it, in short ways, to quote the latest issue, it is "even better than having two machines side by side", since the Ramdisk speeds up data transfer no end. If you are already working with K-Speed, K-Word or K-Graph and find yourself loading and unloading software all the time, £29.95 is a small enough price to pay for the saving in time and hassle in efficiency which you can make.

Mark Jenkins

Program: K-Switch Micro
Price: £29.95
Supplier: S. C. Gorman, 33 Lonsdale Road, Heston, Middlesex, Uxbridge, Middx. UB8 3DA



Look for this box

Consolation for the games player

John Cook chronicles the return of the console

Q uote: "And those that shall come here shall come late, and we already meet in the future domain is reality? Oh yes, this Christmas (especially) and next year (for sales dedicated games consoles only and portable home computers as far as playground-wired entertainment packages go. And how strange that will be.

Remember back in the mid-1980s? Even before the ZX Spectrum was given its 20 Drive 10mb add-on? Do you remember the games consoles? Those glorious days of the Interscope, Atari and Intellivision. Those days when you managed your house by buying a console, then managed your cat to buy the cartridges and away you went... black graphics and all. A whole lot of ports, but I will leave people associated with a television programming house that never let the Atari cartridge version of Defender. However, it's no secret who the dedicated console eventually lost out to the hybrid computer/console, and then to the full blown computer age.

After all, you can't do your word processing on a console, or talk up to Prozac - and playing on 128 or so for several hours packed into a cartridge was far from an inexpensive business.

In short, the question was, why pay for an inferior, technically inferior system, when you could buy a home computer? People voted with their wallets and the rest is history. Yet, the fact is, this week saw the official announcement of one major games console into Sega Master System, released in the UK, Germany and Holland by Amstrad and two more

consoles (the Nintendo and the new Atari) will be out this pretty soon after. So what's changed?

That's entertainment

The fact is, the home computing market over the past three years has slowly polarised into two camps - the games players and the buffs. Games players use their computers, usually low-end machines, almost primarily as playground consoles. Plug in the joystick, head in the games and away you go, whereas the buffs totem with more expensive res-



ources or peripherals, while after using the thing for entertainment purposes, will spend a great deal of their time actually programming the thing, or using it for some other purpose.



While being totally adequate for the latter function, almost all home computers don't do very well as simple arcade consoles. The need for a keyboard, interfacing, considerable amounts of on-board RAM, etc., and the lack of advanced graphics chips, games-oriented hardware routines plus, in some cases, something as elementary as a joystick port, mean that almost all low cost machines don't come up to scratch. And the sheer act of wiring for your favourite game in lead and the case for a dedicated console tends to take off from the Sega Master System.

The Master System

Sega, in case you didn't know it, is a Japanese multinational which happens to be one of the world's leading manufacturers of dedicated gaming arcade machines, such as Space Invader and Zaxxon II. The Master System package consists of the main unit, the power lead and two control pads - together with an AC adaptor and a game on Sega Card, called Runaway. But perhaps, the most interesting thing about the Sega is the price - £99.95. And that's pretty cheap for a system that manages to deliver arcade quality games far more consistently than most home computers.

Hardware

At present, very little is being said about the detailed hardware spec - partly, no doubt, because of patents, partly through ignorance, as there are only three machines in the country. However, it can be revealed that the main CPU is a Z80A running at 3.58MHz with 16K of RAM and 128K of video RAM. However, the outstanding aspect of the machine must be the custom video chip - purchased to be the same as that used in the standard Sega Master machines.

This allows 32 colours to be used at one time (from a palette of 64) with a screen resolution of 256 x 192 pixels - compares that with 16 colours and 320 x



300 resolution on an Atari ST (driving a monitor baby) and it doesn't come off badly. Hardware sprites, 32 on a single screen here up to 256 and hardware scrolling routines mean real business as far as speed 'em up go. Sound isn't neglected either with three four-note sound channels and white noise generator for those really noisy explosions.

Naturally, connections to the outside world are few. One port for cartridges on the top, one slot for cards on the front. On the back it's one output for the TV, one A/V (audio/visual) socket that'll connect up to an RGB monitor or both if you prefer a few extra decibels, together with the obligatory power in and a weight that'll change the output from VHS channel three to channel four. Power supply, system heat and power switches finish the line up – apart from two ports where you plug the controllers in.

These controllers are multi-joysticks with two independent fire buttons and are small enough to hold in the palm of your hand.

The games, of course, are the real

object of the exercise and at the moment you have right to choose from – two on Sega Card, *President* and *Hang On*, with one on cartridge: *Street Racer*, *Fantasy Zone*, *World Grand Prix*, *Choplifter*, *Jason Fighter* and *Army Warriors*. Put, 88 going at £79.99. The difference between the cards (locking similar to Ataris-type cards) and the cartridges are said to be memory size, cards weighing in at 32K and cartridges starting at 128K. That's a lot of game. Let's start with *President* – bundled with the system.

President, the most of the games on offer, isn't going to tax your intellect, but has pretty damn smooth right-wards



The graphics here *Army Warrior* were the inspiration for Andrew Braybrook's *Ultimate* – but see *President*'s *Whisper* for a much inferior version of this vertical scrolling battle.

Hang On and *World Grand Prix* are both fairly straightforward racing games – one motor bikes, the other cars, while *Black Belt* is a cross between *Mr. Art Kung-Fu* and *Kung-Fu Master*.

The best straight arcade conversion is probably *Choplifter*, which has you rescuing hostages by helicopter – a classic that is done proud here, but awards for the worst game go to *Fantasy Zone*. Put on the tape and you're ready to go in outrageous day-glow, internet designs are all so driven home by the colour combinations used in this one. And finally *Jason Fighter* – the one that outshines all the others almost every day. It's a very good game, but has enough in it to keep you thinking for weeks.

Conclusions

Put simply, the new generation of games consoles – Sega, Panasonic and Atari – can do straight off what it has taken four years to get anywhere near on the Spectrum, that is, superb multi-colour rapping. Only the Commodore 64 comes anywhere near this standard and then only rarely, with titles such as *Summer Games* and *Ultimate*.

They will never replace home computers as far as strategy or adventure games are concerned – but they mark the beginning of the end for the low end PCs which are primarily marketed as games machines – and they have some pretty profound implications for a large chunk of the industry.

The cons are the usual – software support, reliability and so on. By the middle of next year there will be at least three competing machine standards and you might be wise in looking to wait and see which comes out on top. But as far as this Christmas goes, Sega looks like it's the only contender in the shops.

Andrei quotes: "I have seen the future." And let me tell you – it's fast and very, very loud indeed.



med with various problems in their adjustment." I knew the federal gov-

Quattrocchi can be reached at 34 Crossways Park Road, Larch, NY York L5-6 4H2. (This address is actually that of John Thomas, who is responsible for the installation of the Purple Corset and for the subscription department, but she will pass your concerns on.)

In *Playboy*, June 30, I recommended the Spectrum Advertiser Exchange Club. William Young of SAEC has now brought me the up-to-date on conditions. Of special interest is a new section titled magazines called, naturally, *Spec Advertisers*, and contains everything you'd expect including news, reviews, tips and so on. Although non-classified magazines have been sent us for some while, this is the first time I know of being dedicated to the history of advertising, and a message to prove it to. The latter contains several programs for the usual magazine-type of things, such as letters from the ubiquitous Jane Fonda, movies, commercials, adverts and so on — and also an advert for a special issue on its third anniversary, called *Spec's Delivery*. Although it is a standard *Guin's* line, there is a lot of glossiness in the other two descriptions, and most arguments get an intelligent response — obviously a lot of thought has gone into constructing the journal.

Followers can also benefit from announcements by The Good and Beautiful which appear on the

the chief personas of one John Wilson often mentioned in the *Carroll*, and possibly of much Americans over the years (as we can tell by the verities of the *Journal*, we run that one), but the other two were named as eligible OEs: a couple of weeks later, in John Wilson's review of the *Carroll*, Stacy Gray of *USA* named O.G. and made a list of 100, including a man I, 28, at 38, Stanford, Texas, Coppola, Reddick, James of 12, 30, and another over, partly, and the *Journal* was not to get a review followed by them and I, having just first-hand experience of John's arthropodological knowledge of Spemann's efforts, I was disappointed that these men (mentioned as a mere handful of men listed, a single supplementary list for a full-scale run-down on the tough games from a set, as well).

There's a lot on the tape as you can see, and the advantage makes the whole thing good value, but I feel that the computer could have been used to more effect – and more fun, and tape would have been welcome (and maybe an alternate map or two). However, the map and its well-presented self (printed) is a splendid addition and even attractively re-designed (theater size) and the food from President's graphics added. Each cost is £2, though you may make out a subsequence for a better discount of 25%. You can write to SAGE at 4 Wilmslow Lane, Cheadle, Lancashire M16 5ST.

Carol Wilson will be glad to answer

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Table 1

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JEFF MINTER, our long-haired Peruvian Correspondent is off to the land of INCA COLA once again.

LEAVING A FEW SOFTWARE ARTIFACTS BEHIND

RIDIS ALPHA

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

DATAFILE: CASER2.DAT **DATAFILE: CASER2.DAT** **DATAFILE: CASER2.DAT**

YAK'S PROGRESS *by* [unreadable] *illustrated by* [unreadable]
written by [unreadable] *illustrated by* [unreadable]
written by [unreadable] *illustrated by* [unreadable]

FUTURE: After the Peninsula High 37 is paid for a 3-year period, a new project is planned which should be worth 200,000 dollars in any one of 100,000 dollars about 1987. According to the author in 1987.

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CLASADOTT LTD., 143M² (approx.) PABLO HANSEN RD, TUMBUK.**

PARASOFT

Poking around in Knight Tyme

Tony Kendle brings you the latest readers' tips for this game and more



Last week I had the pleasure to visit Gargoyle Games at their Tucson HQ to catch up on the latest developments with the superb *Faster Than Light* range. The Spectrum version of the superb *Light Force* is of course a full swing, deservedly making an impact on the charts and the Amstrad version is just out. Anyone who hasn't bought a copy yet, must be mad — the game is a masterly piece of programming by Ray Carter and is wildly addictive.

The Spectrum version caught everyone's attention for the almost unnoted way it seemed to defy arbitrary playing problems, yet still pack the screen with colour. The Amstrad version is just as clever in a more subtle way — the quality of the scrolling and the scores that go on is difficult to achieve on a 16K screen, but it's been done with such style that it's easily the best shooting I've seen on the machine.

The Commodore version is being completed now and no doubt will again pull out all the stops. The second FTL game, *Shedway Rider* is likely not to appear until after Christmas but the team is confident that it is going to be superb.

Now then, I have an apology to give to Tracey Rogers of Odbury for delaying this plea for help but she has landed in a terrible car accident. Robert's Whiggle and desperately needs jobs in some logical tip for this game (Spectrum version). I'm sure that it wouldn't be beyond the ability of some of our more accomplished hackers to get into this game and send me the details to send her distress.

Robert of Heywood has written about the Jet Set Willy codes which we published for the BBC some weeks ago — which is in fact only for the tape version of the game. If anyone can produce a code that works on the disc version we will be very pleased to hear from you. Anyway, Stuart has kindly sent in a code at his own for endless lives on the BBC game *Thrust*. The code doesn't stop you from losing if you run out of fuel.

Now then, to start on the huge pile of *Magic Knight* codes and spot that we have collected over the last few weeks. Before commencing on *Knight Tyme* I've said that we should clarify the cheats regarding *Spoffboard*.

Especially for Paul Bailey of Liverpool, here at last is a full solution to the difficult

"The Spectrum version of the superb Light Force is of course in full swing, deservedly making an impact on the charts . . . Anyone who hasn't yet bought a copy must be mad — the game is a masterly piece of programming and is wildly addictive"

problem that everyone seems to get stuck on about falling through the game.

David James writes: "This is one of the most complex parts of *Spoffboard* as it involves three main actions to be performed as a result of reading two quite cryptic clues. The clues are both in the Crystal Ball and are: 1) The Taro Card meaning Death, destruction and the dismemberment of gods, etc. and 2) a house and a religious book written in Hebrew etc. Clue 1 is the interpretation of the Taro card 'The Lightning Knight Tower' — gas that was the tower seen and set for help. The tower will be struck by lightning causing The Wall to be weakened elsewhere in the building.

Clue 2 is a reference to the Old Testament and the Walls of Jericho.

continued on page 20

Charts

Top Twenty

1	(71)	Paperboy	Elite
2	(81)	Trivial Pursuit	Domark
3	(21)	Lightforce	Faster Than Light
4	(91)	Thrust	Finalist
5	(81)	Ninja Master	Finalist
6	(58)	San Gato	Virgin
7	(73)	On the Border	Americana
8	(1-)	1942	Elite
9	(91)	Dragon's Lair	Software Projects
10	(1-)	Olly and Lyle	Finalist
11	(1-)	Green Beret	Imagine
12	(1-)	Rampage	Finalist
13	(1-)	Ghost and Goblins	Elite
14	(1-)	The Great Escape	Green
15	(1-)	Snake Force Master	Microsoft
16	(54)	Jet Set	Commodore
17	(31)	Olly	Finalist
18	(52)	Video Poker	Mastertronic
19	(1-)	Rocky Stars	Finalist
20	(1-)	Super Cycle	Boys/US Gold

All figures compiled by Gargoyle/Microscope

The Great Escape: love it or hate it

Each dawn I die as the rising sun. Like hundreds of eggs, flapping their dead wings, shuffle across the bare boards of the freezing huts. There was a time when the sight of these beyond the bars fired their souls with hope, but now they don't look at the outside: they stare at their feet or gaze at a fly crawling in the cell.

Not enough of the storyday tale of prisoners' death on their lock - let's take a look at The Great Escape, Queen's Colditz-style set in appeal to those who think British. It's a classic program, a sort of Rurikid means Long Cash, set in a Second World War German prison camp.

Yes, Major Steve McCusker, head of the prison, and most of the details of prison camp life while at the same time putting together

the necessary equipment to escape. You and the other prisoners are represented by the aforementioned bundles of rags, generally shuffling around aimlessly, while the camp is also peopled by prisoned guards and the commandant.

The most interesting thing about the program is the way the play is structured. Each day in the camp has its routine, starting with roll call, days breakfast, then exercise time and ultimately bed, and if you leave your character to his own devices he'll follow this. So what you can go where you want you have to judge when you do this carefully, nipping in late dates on the way to breakfast then back out before you're spotted, for example.

The main display is of you, seeing screen, surrounded by the pan of the camp you're in, while the bottom and side



showing the state of your morale and general hardness. Morale is driven by a flag, which in the experience tends relatively slowly, a pole in the air, so it's not a bad idea to get it up as soon as you can. It's also a good idea to get it up as soon as you can, as it's a good idea to get it up as soon as you can, as it's a good idea to get it up as soon as you can.

On first impressions it looks as if there could be a lot to the game, but I have a nagging doubt that the bottom could prove too realistic for

some people - does the Good British software buying public really want to hang around a full half waiting for an opportunity to break off. One could say it looks like the sort of program you'd either love or hate, so don't blame me if you find it. Personally I think I could give to love a

Popular Appeal 4 4 4 4
John Lortie WC

Program The Great Escape
Miles Spectrum Price
£1.95 Supplier Ocean, 8
Central Street, Manchester
M2 5NS.

Pretentious and galvanising Galvan

As the last surviving member of Pretentious Organisation Inc. you are sent to the Caverns of Doom or wherever, in the planet Fawn to eliminate the adversaries you can lay your plans on. Since these foes are evil it's obviously an okay thing to control genocide.

After Galvan one is you don't have any weapons or your own is extremely basic: swords, robots and ships. Catch two is this isn't a martial art, it's a game. This puts you in serious trouble until you find some weapons beyond your feeble ability to punch. These weapons appear in the form of power crystals which give you more power (what a surprise!) than an increased weapon. And then it's killing time as you go in search of things to kill, culminating in the hopeful killing of the Great Demon at the end of each level.

The graphics are presented in a 3D side on perspective with very colourful backgrounds. The problem is that the background is too colourful and all the foreground objects, your good robots and

included, tend to blend in, making it occasionally difficult to see precisely where you are.

Popular Appeal 4 4
Christian Evans

Program Galvan Miles
Amstrad CPC, Spectrum
Price £9.95 Supplier
Image Software, 8
Central Street, Manchester M2
5NS.

Spies amongst the horses

Many things amongst the rearing, rearing means just one thing - you're on the Dick Francis track! The man who turned the Sport of Kings into the Sport of Computers has created the adventure game.

For no Francis aficionado, but the opening of the Ham-Jam adaptation seemed fairly fit to his. Selling in spots, at least. You enter in your house, with a lot to pick up before you answer the incessantly ringing phone. Next leap into your car, zooming off round the home counties, but keep an eye on the patrol page if you

want to avoid highway robbery - an A4 man with a cow rope.

The presentation is pleasant, with location descriptions appearing above the main communications window. Some objects only appear in the main window though, so watch it carefully. The vocabulary doesn't seem to be that big and the phrase book is confused in tone.

The 64-bit of the tape version is a strong game, in which you study facts then place the intriguing mystery on the printed page. I fail to see the fun in

being an imaginary pony in an imaginary place, and the introduction of the simulation would make Francis, who is always factually accurate, demand a viewer's enquiry.

All in all, your reaction to Fawn. It will depend on whether you like the subject matter. If you do, it's complete enough, but if not, you'd better stay away from it.

Popular Appeal 4 4 4
John Minton

Program Fawn Sky ML
c10 Spectrum 46/128
Price £9.95 Supplier
Mosaic Publishing

The funnier side of Dragon's Lair

Wanna hear something funny? Remember Dragon's Lair, arcade game with groovy graphics, courtesy of several grades' worth of laser disc animation designed by

an ex-Disney artist? Well, here it is on that classic graphics machine - the Spectrum!

Okay, so the Spectrum can't deliver the ultra-high-res grade B fun, as would that

old devil without chain, Lord Dink, as a shadow of his former self - a more cautious, discreet. But within the limitations of the machine, Software Projects has done a reasonable job.

They've chosen very appropriate from the game, involving running, jumping and sword play, but the only way to control all the odds is via multitouch, which is aggravating if you're forced to go back at the beginning. This is an ideal case for the full 128K treatment.

I also found the loss of life awkward, where Dink jumps to a skeleton, then miraculously disappears, meaning it may be true to the original, but a quickly become tedious.

You'll get to see a rather a lot too. Dragon's Lair is difficult, in fact, I'm tempted to suggest that it's too damn difficult. I spent ages struggling

the first screen, sliding around a falling disc with four wires blowing, but failed time after time because it requires great accuracy.

This is just too much for the first sequence, and without the fantastic cartoon quality, the reason for persistence isn't enough. If you loved the original, you may want this reminder for your macro that the result has been lost in the compromise that it's not a clone - just a classic case of attempting the impossible.

Popular Appeal ♦ ♦

John Minton



Rogue addicts

Rogue is straightforward. 256K goes into down-converting on a computer - but the ST graphics ability and the tweaked sounds are programmed the best, combined to make an outstanding look and play job.

You make your way through the dungeons of doom - all 25 levels of them - gaining experience as you fight varying monsters.

Other things you'll pick up are gold pieces, potions, scrolls, rings, extra weapons, etc.

Not as sophisticated as Diablo and Dungeon, but considerably more playable and tons having different levels are generated each time you play - a nice sort of mosaic, windowing and so on make this a near ST classic for the fantasy buff.

Popular Appeal ♦ ♦ ♦ ♦

John Cook

Program Rogue **Price** £24.95
Supplier Syco, via Data Shop, 1-4 The Mews, Hammersmith Road, Chiswick.



Mediaeval adventures

Those of you familiar with the Court of King Arthur will be drawn to eager to buy Camelot Warriors. Amadeus's faithful reproduction of legends, spanning Britain, Holy Grail and all.



Well at night, maybe there weren't any poison knights in at Camelot. Or later pigs. Or rain-eating plants. Popcorn is but neither so electric. But the hero does look like a knight - and he sure was a big, that is.

You'll have deduced from the above that Camelot Warriors is a somewhat free interpretation of mediaeval armoured warfare. It is, however, a colourful, amusing and engaging arcade game.

It's split up into four worlds, constructed out of varying platforms, and you must retrieve four gems from the 25th century - including a light bulb and a TV - which have somehow got mixed up in them. Controls are simple, just left, right, jump and fire. But your sword isn't while it's not that you need spin-kicked timing to survive.

This could, however, prove to be a problem for players, as overwiping attacks in which you're using.

But although I feel it could easily be a bit less rigorous, it does have a certain addictive quality, and if you don't mind being driven mad it's keep you occupied until the sun comes.

Popular Appeal ♦ ♦ ♦

John Latham

Program Camelot Warriors **Price** £24.95 (approx. £14.95 disc) **Supplier** Amadeus, 20 Long Acre, London WC2.

Slowpro

Michael Riles

Ever played games where the action was just too thick and fast? Are your reflexes slowing down with the passing of the years? Well, it was so then Slowpro is just the ability you require.

It uses interrupts to enable the user to slow down programs to any required speed. Run the program and enter Responder User 85120. Then load up the game you wish to play. Now, pressing 2 and Responder slows down a program gradually while 1 and Return reverts the effect. 3 and Return restores the program to its original running speed.

Slowpro will slow down any use of commercial programs as long as they don't use interrupts or memory from 85120 upwards.



```

10 CLEAR W0000: LST L=0 FOR I=0-100
20 W0000 STOP 0: LST T=0: READ DOT
30 FOR I=1 TO 8:7: READ A: IF A=000 AND
D B=0000 THEN PRINT " SLOWPRO NOW LOAD
80 INTO MEMORY: >AVE SLOWPRO CODE 85120
1300: >RANDOMISE 000 05100: TO EXECUTE
SLOWPRO": STOP
45 IF A=255 THEN PRINT: PRINT "
ERROR IN DATA ": STOP
50 LST L=0: FOR I=0 TO 8:7: IF LST
<+ THEN PRINT: PRINT " ERROR IN B
ATA LINE ": L: STOP
60 LST L=L+10: NEXT I
70 DATA 011,02,9,237,71,237,94,201,8
80 DATA 1587,0,256,263,265,197,213,229
,205
90 DATA 1699,123,256,275,209,256,228,2
09,263
100 DATA 1699,241,201,201,62,198,211,95
,5,229
110 DATA 1329,284,201,5,256,135,256,203
,02

```

```

120 DATA 1600,247,011,256,234,206,207,1
2002
130 DATA 1682,180,256,62,247,233,255,93
8,266
140 DATA 1601,230,2,202,193,256,60,247
,201
150 DATA 1587,255,219,204,207,5,202,244
,256
160 DATA 889,241,241,5,50,257,229,62,1
140 DATA 1292,26,276,237,201,58,276,244
,256
180 DATA 1297,0,242,220,254,61,50,255,1
55
190 DATA 1780,285,58,244,255,254,255,58
2,229
200 DATA 1587,256,60,50,244,255,241,245
,267
210 DATA 1581,237,71,256,255,10,201,176
,207
220 DATA 949,251,193,241,201,17,0,0,62
230 DATA 1200,255,275,275,263,2,201,199

```

Programming: Amstrad CPC

Race Advisor

Nicky Morris

Thanks now follows the second part of this listing for my Amstrad CPC machine.

When entering a horse's most recent results these can be entered exactly as in a newspaper, ie 100 where 0 is used to represent non-starting, finishing fourth or worse.

The method used by this program could certainly be done by hand but would probably take around three hours for just one race meeting.



If you would like a copy of the program with descriptive plus data for several race meetings send £3.25 to 22, Richard Street, Dumstable, Beds LU8 4BH.

People would like to point out that we accept absolutely no responsibility for any money lost through the use of Nicky Morris's program.

Programming: Amstrad CPC

[illegible][illegible][illegible]

Programming: C64

Disc Help

Gen. 4:1-10

Partners of Christ Hope follows along with the curriculum for the previous semester.

- List feed sends a message return to the printer.*
- Quit returns you to the main menu.*
- Send IP# + send to send command codes.*
- Fast feed speeds 25 lines.*
- Print sends an 80-character string to the printer.*
- End is used to test the file name.*

After selecting an option on either menu you may be prompted to enter a filename or string. On some occasions, after the program has checked for error you should enter the error list.

Received 10 November 2004; accepted 23 May 2005

Programming: C64

Italics on Spectrum

by Tim Lyness

The following Spectrum program creates an italic character set starting at 84000. Change the value at line 45 to 39 to create a left sloping set. To use the new set enter Poke 33607,249. To allow the set to be copied to another location do the following:

Poke 30004,v-256*len/256

Poke 30005,into/256

Poke 30015,v-256*len/256

```
5 CLEAR 29999
10 FOR I=30000 TO 30047:READ A:POKE
I,A:NEXT I
20 RANDOMIZE USR 30000
30 POKE 23607,249:PRINT "ITALIC
CHARACTERS!"
40 DATA 33, 0, 64, 17, 0, 250, 1, 0, 3,
237, 176, 1, 0, 3, 28, 0, 250, 17, 5, 0,
126, 263
50 DATA 47, 119, 27, 62, 0
60 DATA 187, 40, 7, 35, 120, 177, 11, 32
240, 201, 35, 35, 35, 32, 11, 11, 11, 11,
175, 65, 117
```

Poke 30016,into/256

Randomize Usr 30000

where v is the starting address.

To use the set starting at v,

Poke 33608,v-256*len/256;Poke

33607,into/256-1

To save the new character set enter Save

"Set" Code 84000,755.

Hires Dump

by R Clapp

The following program for the Red quad Ferguson Mini 11 dumps compressed bit dumps in hex format to a Brother H85 printer in about five minutes only.

The printing will be slightly compressed along the x-axis compared with the screen because the pin spacing is smaller than the carriage pitch (1/72). Adjusting the line feed value in line 600 to 7 or 6 will get round this but will also break up the horizontal lines.

```
300 S=40960:E=4096
310 PORC=17040
320 LPRINTCHR$(27):"X";CHR$(200);CHR$(10);
330 FOR L=5 TO E STEP 40
340 B=PEEK(L)
350 IF B=63 THEN B=B-64
360 LPRINTCHR$(B);
370 NEXT L
380 S=S+1:E=E+1
390 LPRINTCHR$(27):"A";CHR$(10);
400 LPRINTCHR$(13)
410 NEXT C
```

Shadow Ram Access

by A W R Crawford

If you've bought an Amn 1000E or upgraded the old 8000E, then you may be wondering how to gain access to the additional shadow memory that this machine has. Well, this program allows you access to the extra Ram. Type in and use the program, instructions will be printed on screen.

```
10DIM MOVES(70):RESTORE:FOR L=1 TO 70
:READ O:MOVES(L,L)=CHR$(O):NEXT L
20PRINT CHR$(125):POSITION 2,4:FOR L=0
TO 60 STEP 10:PRINT L:NEXT L
30POKE 766,2:PRINT "10 COM MOVES(70):
MOVES:";CHR$(34):MOVES:CHR$(34)
40PRINT"20 POKE 843,12:POKE 766,0:PRI
NT CHR$(125):LIST:END":PRINT "000020"
50POSITION 2,0:POKE 843,13:STOP
60DATA 106,106,133,206,104,133,203,10
4,133,206,106,133,245,104,104,170,169,0,
141,14,212,175,1,211,41,254,9,2
70DATA 141,1,211,41,254,9,2,141,1,211
,160,254,177,203,145,305,126,280,249,239
,204,230,206,202,208,240,179,1,211
80DATA 9,1,41,254,141,1,211,169,162,1
41,34,212,96
```

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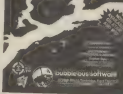
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With Ness Garroch

Multiple copies

Chris Liddell of Novell, in Southampton, writes

Q Do you know if anyone has made good processing software for the PC80286 that produces multiple copies of documents? I use my machine to produce worksheets for pupils. Amsoft says there is no facility for doing this within Lotus123.

Do you know whether anyone has produced another version of Basic that will run on this machine? I'm not experienced in programming, and I would like something that does processing on BBC Basic dose. Was Papadoc reviewed elsewhere on any similar ideas processor? It's mentioned in your July 10 issue but I haven't seen it since.

A The only word processor that I know will produce multiple copies is Wordstar, but this doesn't mean that there aren't others. Most reasonable processors will cope with creating out as many copies as you like.

I remember that there was once a Z80-CPM version of BBC Basic, available for the Wren and also running on the Z80 second processor for the BBC. However, I don't know whether this is still available or who produced it. Maybe they will read this and let me so that I can tell you.

If you want to learn structured programming, you could do worse than use Pascal (available from BR at £50) as this is even better than

BBC Basic since it was originally designed to be a teaching language.

Someone has never been reviewed as PCW but we hope to cover it at a future issue.

Power struggles

Mr Tyler of Ormskirk, in Cheshire, writes

Q I have a problem with my Commodore 64. When I switch it on, the power light flashes brightly, then dims, and slowly comes bright again. All I get on my monitor is a blank screen. I do, however, have a reset switch which it then presses causes the computer to boot up. After an hour or so, the screen starts doing funny things and the power light dims.

When I try switching on and off, the power light never gets to its full brightness and even the reset switch doesn't work. If I let it cool down, the machine will work but only by the usual method mentioned above.

Could you tell me what is wrong and what, if anything, can be done to fix it?

A It sounds as though you have power supply problems. If your power supply is getting very warm, it could well be broken and not able to supply enough power to boot the system. The reset switch works by taking the reset line of the cpu low causing a cold boot. If there is nearly enough power then this will work. After a while though, the power supply gets hot and the voltage it produces drops below the cold boot level.

The answer is to get your computer looked at by one of the many repair companies now advertising in the various computer magazines but this dis-

abled section of Papadoc. What they will probably do is replace your power supply (approx £30) and give the rest of the system the back over, returning it to you as good as new.

Amstrad rumours

Mark Mowbray, of Pagan, Hemel Hempstead, writes

Q I heard recently that due to the release of the Spectrum Plus 2, the Amstrad 5128 will start to take over from the other Amstrad models.

I have a CPC 464 with disc drive and wondered that if I obtained a 5128 Ramdisk, would it be able to run 5128 software. If not, how could it?

A As far as I know, the software houses currently produce all their Amstrad software to run on the 464 as this basic Amstrad machine price is well below that on the 664 and 5128 at least. The Spectrum Plus two is reputed to be fully compatible with all Spectrum software so the chances are that software companies will continue to publish for both formats.

The software you will want to run falls into two categories, that running under CP/M and that running under Amstrad. With the former, you should have no problem fitting a Ram disk since this should increase the TPA (Transient Program Area) available in CP/M allowing the 5128 CP/M system to be loaded.

With Amstrad, I am not sure whether Amstrad has changed the operating system on the 5128. The chances are that it has, so linking the extra memory will not help. However, as I mentioned above, there is no reason why the software houses should change from their policy of producing programs for the 464 as a base machine.

Screen to screen

Edward O'Toole of Dublin writes

Q I own an Amstrad 5128 with a colour monitor. Is there any way I could connect my Commodore 64 to my Amstrad monitor?

A Sorry, but I'm afraid you can't. The Amstrad uses an RGB output (ie Commodore 64 a composite signal) and the two are incompatible.

Enter the Dragon

Rob Baxter, of Whittier Range, Manchester, writes

Q I recently bought a second-hand Dragon on 32 and as a side note even a TV, was hoping to connect it to one of my existing computers.

But so far I have had no success. I have been unable to find a suitable cable and have tried to make one up myself but I cannot find details of the pin layout.

My monitors are the standard Amstrad CPC model and a Ferguson green screen monitor. My main worry is the risk of damaging my monitors, is this possible?

A The possibility of damage is always present when messing around with electrical equipment, however, the risks in this case are very slight.

Although the Dragon may well claim RGB output, this was never implemented. The video output is composite video as you're in with a chance on your Ferguson green screen.

Only three pins are used on the Dragon video connector (pin 10 is ground, pin 11 is composite video). If you can match these up you should get a picture, although sound will depend on whether your monitor has a built-in loudspeaker (many don't).

Is there anything about your computer you don't understand, and which everyone else seems to take for granted? Whatever your problem, ask it to Ness Garroch and every week he will poke back as many answers as he can. The address is Peek & Poke, PCWE, 12-13 Little Newport Street, London WC2E 8LD.

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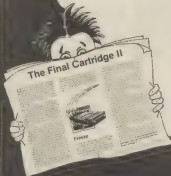
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Absolute beginner, intermediate musician or confirmed expert?

Mark Jenkins peruses a selection of readers' tapes

The main problem in writing a column of this sort is knowing where to pitch it — at the absolute beginner, the intermediate musician, or the confirmed expert? The last dispositions as for an equipped or unskilled come in three stages, as follows:

1 The beginner with a standard micro and enough interest in music to buy a software package to use the micro's built-in sound chip.

Examples of products aimed at this level of interest are Bandcraft's *Amused Music System* on the C64, BBC or Amiga, the *Raster* packages for the MSX which were looked at a few weeks back, and many more pieces of software in the £10-£30 range.

If you're pleased with the things and things your computer can create, but would like to have them louder/faster/longer/more powerful, the intermediate stage of interest is as follows:

2 The amateur musician with enough cash and interest to want to expand the micro's hardware with a real music keyboard, an additional voice module, a "real sound" sampler or other accessory requiring extra packages £30-£200.

Some of the latest exciting music micro products fit in this bracket — the *Ren Music Modules* (starts the bottom end (£49.95) offers sampling, riffs, drum machine features and a 16k sampler for the Spectrum, Spectrum 128, Spectrum Plus and Spectrum Plus 2. That's a quote on approaching achievement, but it can be featured in terms of quality by products for individual purchases from Chascon, Curnah, Synchro Music (the first digital bit is a particularly outstanding music drum machine), Commodore (with the FM Sound Expander) and many others.

After this stage you'll probably be hooked on the music but you will begin to find your micro a little limited as an instrument, even with additional voices, sampling capability and so on. Don't despair, because even basic micro-Commodore, MSX, BBC, and more recently Amigaed (or Amigaed) can have a place in the world of fully professional music — stage three.

3 For all practical purposes, you've entered the world of professional music: once you link up a micro to a series of instruments using Mod, the almost-universal synthesizer interface.

Multi-synthesizers start at around £350 now (Casio's C2-101 seems the best bargain) and every modern synthesizer from the Casio to the £15,000 Steins II (Purley) is Mod-compatible (many also can benefit from a Mod-to-analog interface tool).

If you don't believe that a humble micro can have any part in making that hit, you'll be pleased to hear that Black-magic, Vince Clarke and A-Ha III use BBC micro with a package called *GG-28*, this commercial version of *Music System* by C-Soft on the Commodore 64 and then Dave Brown and Marilyn Aythia use the Atari 520ST with the Steinberg *Pro-24* software.

So from making blipping noises with an internal sound chip, your micro can take you all the way up to professional studio level with your expensiveness related to match your talent in music.

What we'll like to know is — where would you place yourself? Are you just interested in music as an alternative to playing records? Would it be a game, or do you feel that your interests will develop? Have you started to record music from your micro and play it to anyone else (and would a few hours on recording techniques be appreciated)? Have you looked out for any kind of hardware expansion yet, and if so, how do you experience any compatibility problems, and do you intend to move on to Mod interfacing?

Answers to a few of these questions help us tailor the music column to suit your specific needs — and so far, we've had a good selection of tapes, discs and data cassettes sent in which confirm interest at all three of the stages we've mentioned.

For instance, Andrew Wilson of Edinburgh has sent in a very sophisticated tape composed with a BBC-based GMA-28 system and a selection of Mod synthesizers and drum machines. The sound is very full, particularly in the passages with sampled guitars and fast sequenced arpeggios (aching the slower rhythms played on marimba or flute sounds).

Each piece is four or five minutes long, mostly pure co-samples — ideal for "test and music" before a career library music in the business, and other saving very well as for documentary films. Given enough synthesizers, micro control means that you can record a complete

piece (as long as you don't want to do vocals or guitars, for instance) straight on to a master tape without needing an expensive multitrack tape machine at all.

At the other end of the scale, Peter Bayes from North Yorks has been programming music for the MSX machine, and has sent in a listing for a version of *Memory* from the show *Cele*. It takes on 4.2k and is about 100 lines in length — and Peter now plans to get hold of the Yamaha SFG-05 FM Tone Module to improve his micro's sounds. If you're interested in swapping listings you can contact Peter at 8 Pinfold House, Mount Crossings, Malton, in Yorks YO11 0UG.

As a touch of this week's hot version in with a few interesting questions — how much is a Yamaha DX1 and is it value for money (about £850 seemed high — you for keyboard players, probably no for programmers); is a Yamaha PS6480 electronic keyboard a good idea for starters and does it connect to a C64? (2k) (yes, but not, what is the best beginner's bus for the type C64? (perhaps the Commodore Sound Expander with its without keyboard, the Tran Digitalist at its sampled drums, and the Steinberg Pro-28 composer once you've got it). Mod synthesizers; what's a Mod and what does it do? (that you need to get hold of *Electronic Music On The Commodore 64* by Mark Jenkins called, Sunshine Books, £8.95); do you know of any programs which will help me write machine code music (see Ian Waugh's *Commodore-64 Music for Basic programs*, and *Chapter Five of England and University's Machine Code Graphics and Sound for sample machine code music routines*, both from Sunshine at £6.95 each). Micro music built in Spectrum may like to connect (in to songs ideas — let's in Cross Ltd, Colldingham, Peterborough TD14 5NS).

CORRECTION — Prices of the *Amused Music System* reviewed in our recent music supplement are £19.95 and £29.95.

If you have any queries or tips for this column, please write to Mark Jenkins at *Amused Computing Weekly*, 12-13 Little Newport Street, London WC2H 9PP. Mark would also welcome examples of your best Mod or audio or program tapes, or disc.





Roll up for the magical musical modem

David Wallin sings about Musitel, now bigger and better than ever

I expect many of you will remember the small London-based board, Musitel, magnificently amongst the 200 odd other boards in the country. Not any more. Musitel is the name of a company which runs many boards. The title of the board shows the boards that are presently run as part of the Musitel network. The boss of the board network, and managing director is James Holmes, the boss of the original board, Musitel.

Musitel Boards and Music

As the names suggest, Musitel boards specialise in music features. This does not mean that you have to be a composer or a concert pianist to understand what you see when you log on. The boards are similar to any other board, but they have slight changes and very musical signs and downloads. For example, Musitel itself has feature charts, and Musitel Plus has a whole lot on TV screens. On Musitel, the signs include: the Music 500, classical music and pop.

displayed at a high enough resolution are of a very high quality.

Also speech digitising is possible. To listen to some digitised speech again you need a BBC, as the files are for the BBC and, log on to Musitel 00, the only one I know of which has digitised speech files available for download.

Digitised speech is, inevitably, it sounds just like the real thing. When William Holmes (Syndic, Musitel Plus) played me a digitised copy of the speech at the start of Egypt later over the phone, I had difficulty believing that I was not getting a cassette recording of a

digitised sound does use up less of your 500's. I, eight seconds of speech taking up approximately 200, and a piece of music, up to 300. The reason is at a very high quality though and definitely worth downloading if you're a BBC owner.

One thing to point out, a digitised tape/picture/file of speech can be played back on an ordinary BBC; the digital is not required for playback.

acoustic system to be working within an evening.

Musitel 500 specialises in the Music 500 add-on for the BBC, and downloads which require the Music 500 unit to be present for them to run. There will also be information on and for the Music 5000 upgrade unit. I believe that is the nearest 16-based Musitel board, and I'd be grateful to hear from anyone with more information.

Egypt is the Musitel network's latest target. A board is due to open up there within a couple of weeks. The number is as yet unknown, but I'll let you know it as soon as I can, for anyone who wants to track up some really long distance calls.

If you're wondering why there's no Musitel 3, then I'll explain. When William Holmes was given the option of joining the Musitel network as Musitel 3, he decided that he preferred the name of Musitel Plus.

I'll bring you updates on Musitel when they come. As soon as Musitel Egypt is online, I'll let you know and give you details on how to dial direct to Egypt and what it will cost.

Musitel boards are designed for all varying purposes. Companies can have an advert on all the boards. Praxtel, Telnet in France, Musitel Egypt before opening and the Source in the USA, for just £10 a week.

This will enable all the Musitel boards to be upgraded to run on Winchester, hardy computers, because multi-user, etc.

This does not mean that when you log on you will see adverts and screens of adverts for electrical, computer hardware and software companies and the like, before you even enter your name. Companies wanting more information on advertising can get it by logging on to Musitel or dialling 01-887 0311 for their publicity agency.



All the Musitel boards have downloads of music files for the BBC. I am pretty certain that James is working on having files for other computers available soon. These downloads are not the pathetic tunes of cheap games or typical jingles, but proper, digitised melodies.

A sound digitiser or sound sampler basically listens to a sound, notes or piece of music, and converts it into computer data. The reproductions are as good as if you had listened to the music on a high-quality cassette. In fact they can be better on repeat listenings and peak up static and dust.

Digitising devices don't stop at music either, since video digitisers digitise pictures, taken from a video camera or video recorder. The pictures created, if

Musitel Plus, claims William Holmes, will be unusual, with features previously unseen on bulletin boards, and he won't say any more.

To find out about the Plus section, you'll have to log on yourself, when Plus goes on line, which should be very soon. There are plans for some sort of multi-

The Musitel Boards (more boards are currently being set up)

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Musitel 2	0483-053764	James Gaskard	Hull	FBBS
Musitel 4	0885-621483	Guy O'Hare	Liverpool	ABBS
Musitel 500	01-855-8203	Musitel Center	London	FBBS
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1. *U.S. Department of Health and Human Services, Office of the Assistant Secretary for Health Policy and Statistics, "The Health of the Nation: A Report to the President,"* (Washington, D.C.: U.S. Government Printing Office, 1978), p. 1.

199004, R. A. Dillingham, *et al.*, *Journal of Polymer Science, Part A: Polymer Chemistry*, 28, 1991-2000 (1990). This paper reports on the synthesis and characterization of a series of poly(arylene ether)s containing a central benzene ring and two pendant phenyl groups. The authors describe the synthesis of these polymers via a series of reactions involving a central benzene ring and two pendant phenyl groups. The polymers are characterized by their molecular weights, inherent viscosities, and thermal stabilities. The authors also discuss the effect of the pendant phenyl groups on the properties of the polymers.

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John Cook looks through this week's new arrivals

Amstrad CPC

Program: Doz Door Type Arcade/Strategy Micro Amstrad CPC Price £7.95 (tape) Supplier: Panda, 4 Little Essex Street, London WC2R 3JF.

Program: Conquer Modern Type Arcade Micro Amstrad CPC Price £8.95 (tape) £14.95 (disc) Supplier: Amstrad, 99 Long Acce, Gwent, Gwent, London WC2E 9JH.



Program: Finest Type Arcade Micro Amstrad CPC Price £8.95 (tape) £14.95 (disc) Supplier: Heston, Heston House, 560 Station Trading Estate, Milton, Abingdon, Oxon OX14 4BX.

Steve Crow's first after his defection from *Bubble-Bus*, this is first rate arcade adventure - if you're in the market for that kind of thing. 500-word scenarios to explore - there's certainly plenty to do, although you might think it looks a bit dated.

Program: Apollo Type Arcade Micro Amstrad CPC Price £7.95 Supplier: Panda, 4 Little Essex Street, London WC2R 3JF.

Program: Inferno Type Arcade Micro Amstrad CPC Price £9.95 (tape) £14.95 (disc) Supplier: US Gold, Unit 2/3, Halford Way, Hemel Hempstead, Herts. SG9 7AA.

Program: Death Head II Type Arcade Micro Amstrad CPC Price £8.95 (tape) £14.95 (disc) Supplier: US

Gold, Unit 2/3, Halford Way, Hemel Hempstead, Herts. SG9 7AA.

Program: First Sys Type Arcade Micro Amstrad CPC Price £9.95 (tape) £12.95 (disc) Supplier: Micro Gem, Unit 15, Whitson Centre, Shipstead, Dorset.

Program: Computer Hit 3 Type: Completion Micro Amstrad CPC Price £9.95 Supplier: Demo-Jolly, 216a Hill Street, Reigate, Surrey RH2 7AD.

A rather bunch of games from Demo-Jolly, the C-Tel of the computer games industry. There is some good stuff here - *Out* from Palace, *Demolish* from Microsoft, *Medusa's Quest* from Micro Gem. Tell us, if you've just bought yourself an Amstrad and need a few games, buy a

Amstrad PCW

Program: Document Type Application Micro Amstrad PCW Price Software + Manual £45.95, Software + Manual + Mouse £89.95 Supplier: Poshon Microsystems, Unit 8, The Malmes, High Street, Burnell, Newmarket, Cambs.

Atari

Program: Warlock Type Strategy Micro Atari 2600 Price £14.95 (disc only)



Pick of the week

Fantastic adventure

Program: Phantom Type Arcade/Adventure Micro Spectrum Price £9.95 Supplier: Durell Computers, Castle Lodge, Castle Green, Taunton, Somerset TA1 4AB.

Fantasy arcade adventures are a bit old hat - generally you are Head Pole and must fight against the Evil-Dee or collect the Lost Amulet of Tharg, then go down to the 1000-year-old and collect 20 Potatoes, via Boring. So what about this? You play the part of a 'good dragon', slaying your way

around a fantasy world, burning the peasants, dropping large stones on their heads, slaying castles, eating witches, avoiding too many. Doesn't that sound better? If you agree, then *Phantom* may well be a game to suit your taste.

This dragon slayer is a huge green figure taking up about one third the length of the display and is wonderfully animated. Your actual task is to remove a peccotter from a castle - then take that across the sea to find the spell-book, and then finally on to a third castle in which she can release

Supplier: US Gold, Unit 2/3, Halford Way, Hemel Hempstead, Herts. SG9 7AA.

Program: Six Star Type Arcade Micro Atari 2600 Price £9.95 (tape) £14.95 (disc) Supplier: CPL, 5 Kings Road, Coppenham Road, London E15 2HD.

Off-beat arcade action that seems original enough, but will remind you of several things - *Ball Blaster* included. However, the last that one member of staff had to be dragged away from the machine at the end of the day must count for something.

Atari ST

Program: Underboard Tournament Type Simulation Micro Atari ST Price £24.95 Supplier: US Gold, Unit 2/3, Halford Way, Hemel Hempstead, Herts. SG9 7AA.

Program: Red Alert Type Arcade Micro Atari ST Price £19.95 Supplier: Amis, via Sisco Shop, 1-4 The Mews, Hatherley Road, Sidcup, Kent DA14 4BX.

Program: Mean 15 Type Simulation Micro Atari ST Price £39.95 Supplier: Acorn, via Sisco Shop, 1-4 The Mews, Hatherley Road, Sidcup, Kent DA14 4BX.

Nearly, but the game's speed and poor graphics make this only useful as compared to *Underboard*. It does have the advantage of simulating real courses, and plays quite a good game - just what a lot of money.

Program: Rogue Type Strategy Micro Atari ST Price £14.95 Supplier: Gys, via Sisco Shop, 1-4 The Mews, Hatherley Road, Sidcup, Kent DA14 4BX.

Program: Posh Chess Type Strategy Micro Atari ST Price £24.95 Supplier: Poshon Microsystems, High Street, London W1H 9DT.

Program: Easy Record Type Utility Micro Atari ST Price £39.95 Supplier: Microdot, PO Box 66, St Asaph, Conwy LL25 4YH.

BBC/ Electron

Program: The Last of the Age Type: Arcade/Adventure Micro BBC Electron Price £7.95 Supplier: Audiogame, 12 Chertem Enterprise Centre, Gosson Road, Thrale, York, YO7 4AA.

Program: Thunderstruck Type: Arcade/Adventure Micro BBC Electron Price £7.95 Supplier: Audiogame, 12 Chertem Enterprise Centre, Gosson Road, Thrale, York, YO7 4AA.

from Durrell

[illegible]

But you must be a Dragon with a beam position or something, as you have to keep an eye on the old ticker, displayed in the bottom left of the screen. Just looking out for the amount of high action gets you stuck left before too-long waits.

Shawnee is Pam. I've got 100% says that I would keep you involved for weeks on end, but for an original role that is going to delight me is



well thought-out game design make this an up-market alternative to Rock and Microsoft.

Programs And Also Types Available Address Correspondence Ed Price C.I.B. Supplier Code Manual

The Hauling's follow-up to *The Last W* is slick (and you might find it a bit slicker).

Program Auxiliary Type
Arcade Midge Cartridges
\$4 Price (2.95 paper)
\$14.95 street Supplier
Gordon Stephens, Alpha
House, 80 Court Street, Shel-
burne, N.Y. 12976

Program: Master Alchemist
Type: Arcade Missions
Comments: 64 Prices £9.95
pages 114.55 (incl) Supplier
Artisoft, 58 Long Acre,
Covent Garden, London
WC2E 9RF

Not quite up to the Arcade version, but certainly enough to satisfy most — and you've got a full-on, two-player

Program Analysis Type
Ecology: Micro: Of: Price
\$29.95 Supplier: Caro Elec-
tronics, 800 St Albans Road,
Walsham, Mass.

The quote the TV series that made the legions of readers who, as today's "Fame" says — and

Abstract

However, I can say that if you're looking for a strategy game to get your teeth into, then this is almost certainly a winner, but bear in mind that you'll need at least two people and several spare evenings to play - and your German won't go anywhere near it.

Program: Oil Spill Incident
Plant Type: Application: Mfg.
Program: Oil, Polym. C19.00 (poly-
 [1] pSp outside US) **Supplier:**
 ED May Corporation, PO Box
 24, Houston, Texas

Spectrum

Program: Fibred Tape Analysis Micro-Spectrum Price: \$19.95 **Supplier:** HANSON, HANSON HOUS, 180 Union Trading Estate, Milton, Abingdon, Oxon OX14 4RQ

Program List Item Type: A-
2000 Micro Vacuum Press
CUBS Supplies Program,
Newest Home, 500 Miles
Traveling Route, Maps, Chart
E813 APC

Programs: *Illusion*; Type: Arcade; Micro; Screen Price: \$9.99; Supplier: US Gold, Inc.; 272 Holland Way, Holland, Massachusetts 01404.

Program Name: Type Strategy Micro Spectrum
Price: £8.95 **Supplier:** CCS
14 Langley Way, Bishops Cleeve,
Lancaster LA1 1PL

Programs Available: Type
Article: **Review** (abstract)
Price: \$10.00 **Supplier:** **Mar-**
Gen. Vol. 18, Western
College, Boulder, Colo.

Commodore 64

Program Algebraic Type An-
notation: Matrix Computation and
Price (1975) Supplier Any
Lindell, 48 Long Ave., Concord
Massachusetts, 02142, U.S.A.

Program Summary **File**
Font Type **Article** **Notes**
Commodore 64 Price **CR 55**
part 1 **14 55** **start** **Supply**
US Gold **Use** **279** **Holland**
Way **Holland** **Birmingham** **66**
24x



some extra feedback - rough numbers, real scenarios - but instead you have some of the same kind you, they're amazingly difficult - so we get 10 to hour on hole up, course how if you're getting too expert with the original, well worth a try

Program release Type: Annual
Issue Name: Connections 54
Price: US \$5 (paper) £14.95 (hard)
Supplier: US: C&L Ltd
 272 Hylton Way, Holland,
 Birmingham B8 3TB

Program Super Floral Type
Simulation Niles Commo-
dos 64 Price \$9.95 Incl
1-4 88 (not Suppl) US
Card and 273 Holford Way
Westport, Connecticut 06881

Programs Aim at Joint Type
Service: Minor Commission
 \$4. Price: \$9.99 (plus)
 \$14.99 (plus) Supplier: LK
 Date: Jan 273 Holland: Woe
 Address: Rotterdam 263 2.2.5

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Where are the women users?

There's been a lot of talk and a lot of headlines recently on the issue of equal opportunities for women, blacks, Asians, gays, disabled people and for other disadvantaged groups your local council can think of. The talk has largely consisted of generalisations about how these people have been discriminated against by employers.

However, what of these disadvantaged, minorities and proposals have failed to realise is that often it is the easiest stage - made up of advertising, products, industry leaders, etc. - that minorities and others themselves from entering certain professions.

Let us take, for example, the home computer industry and women. Can you name any women games programmers? I've come up with three: Hanna Barnea, head of Galil Software, Anita Sinclair, Power author, and Patricia Mitchell, co-programming assistant at Virgin. Obviously there must be more, but these are the only ones I can think of.

In the hardware and software companies, women are reasonably well represented, compared to other industries though with a strong bias towards marketing and PR positions. But still these figures do not reflect the ratio of men to women in the general population.

Some may argue that the reason for this is that women are not interested in computers, and this may well be true.

But then the question that has to be asked is why this situation has arisen. Surely there are women writers who could use word processors, women executives who could use programs to set up the sales figures and profit margin, women doctors, dentists and so on who could keep records more efficiently on a day than in stacks of paper and women who would like to relax after a hard day at work with a game of chess, bridge or golf, or who would prefer a quick game of Space Invaders, or the more intellectual challenge of the adventure games.

But apparently this has not happened. Whether the polarisation of interest in computers begins in school, or whether it is because it is often Dad who buys such a computer for home use, it can also be at least partially blamed on racism within the industry. First of all, the majority of highly placed and influential individuals in the industry are male. Secondly, many of the advertisements for computer products are made to appeal to a male audience. The ad for the game Miami Daze featured a woman in a low cut red dress with a huge pair of breasts, surrounded by men in business suits, one with his hand either on her waist or under her skirt - it was difficult to tell which from the drawing. There are three current games which are most definitely aimed at an exclusively male audience - *Demolition Fox's Ship Polar*, *Legend of*

the Amazon Maiden and more recently, *Leather Goddesses of Porn*.

To say that women are free to buy these and other products if they wish is to underestimate the case. It is more or less equivalent to saying that women are free to go out and buy Playboy, or to go for a walk at night and risk the chance of being raped.

In as much as no woman wants to see pornography, or desires to be raped, they also do not want to see the manly, thinly disguised pornography of ads with near-bare breasts for the sake of headline forests which have nothing to do with the game, nor do they wish to be portrayed in games as the 'helpless princess'. It shows women to mere playthings with no purpose in life other than to sexually arouse.

With the emphasis on male orientated games for a male audience, no amount of talk about equal opportunity policies, hiring ratios, and experience in schools aimed at girls will solve the problem of female under-representation. Women, whether consciously or sub-consciously, are not going to want to become consumers in that industry or enter into a market which regards them as largely unnecessary and unimportant.

Unfortunately, in the end it is the industry who will lose out - not only in terms of sales figures, but also in terms of valuable and multi-gift human resources.

Nicholas Bouschamps

NEXT WEEK

Special Supplement The Spectrum Saga's Compliment

A full review of Saga's word processor upgrade system for the Spectrum. New keyboard, disk drive and printer are all included in the package.

Red Box

A home monitoring domestic interface system - from the company headed by ex-Action Red Chris Curry!

Games

All the latest and best games for the Spectrum - *Unlions* (Hewson), *Black'n's Road* (The Angel), *Jefferson* (US Gold) and *Thames* (Durell).

Chess

Don't miss your chance to take part in the *Popular* vs *Colossal* chess tournaments.

Video Digitiser

Create your own digitised pictures with Habi's digitiser for the Atari ST. Duncan Evans reports.

BBC/ Electron

Program Poppy's Type Arcade Micro Amstrad CPC Price £7.95 Supplier Pro-ads, 4 Lido East Street, London WC2R 3LP.

Program Infotrac Type Arcade Micro Amstrad CPC Price £9.99 (tape) £14.99 (disk) Supplier US Gold, Unit 2/3, Holland Way, Holford, Birmingham B6 7AX.

Program Search-Head II Type Arcade Micro Amstrad CPC Price £9.95 (tape) £14.95 (disk) Supplier US



Supplies via tape, Unit 4/5, Holland Way, Holford, Birmingham B6 7AX.

Program Red Alert Type Arcade Micro Atari ST Price £19.95 Supplier Amc, via Siles Shop, 1-4 The Mews, Haverley Road, Sidcup, Kent DA14 4DX.

Program Moon 13 Type Simulation Micro Atari ST Price £29.95 Supplier Arcade, via Siles Shop, 1-4 The Mews, Haverley Road, Sidcup, Kent DA14 4DX.

Program The Last of the First Type Arcade/Adventure Micro BBC Micro/ Electron Price £7.95 Supplier Audiogenic, 13 Children Enterprise Centre, Station Road, Thacke, Barks RD7 4AA.

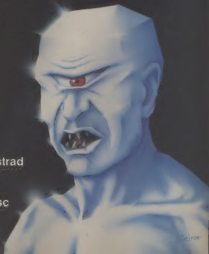
Program Transdimension Type Arcade/Adventure Micro BBC Micro/ Electron Price £7.95 Supplier Audiogenic, 13 Children Enterprise Centre, Station Road, Thacke, Barks RD7 4AA.

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